

Virginia Division of Consolidated Laboratory Services

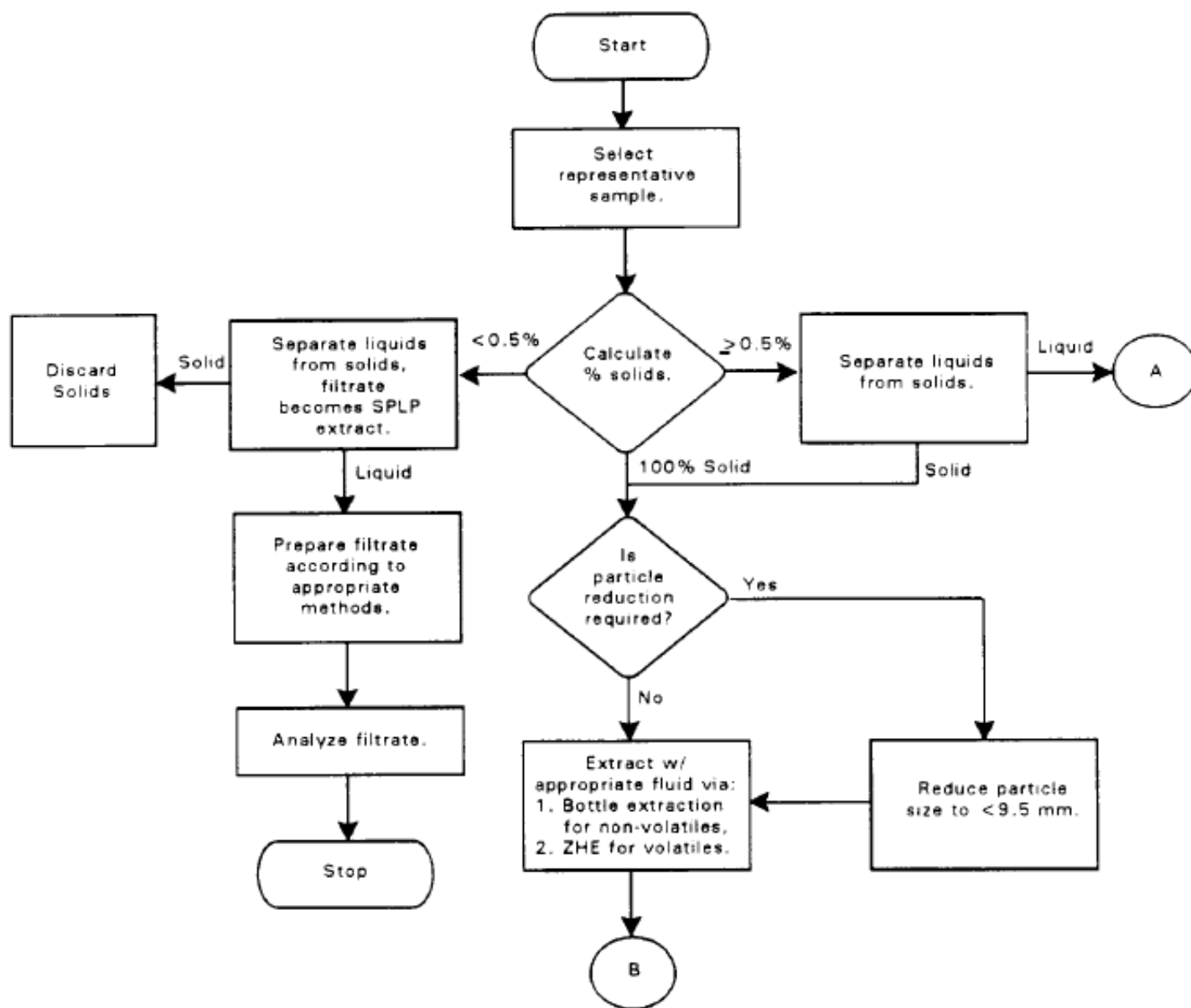
SYNTHETIC PRECIPITATION LEACHING PROCEDURE by EPA 1312 (1994)					
Facility Name: _____ VELAP ID _____					
Assessor Name: _____ Analyst Name: _____ Inspection Date _____					
Relevant Aspect of Standards	Method Reference	Y	N	N/A	Comments
Records Examined: SOP Number/ Revision/ Date _____ Analyst: _____					
Sample ID: _____ Date of Sample Preparation: _____ Date of Analysis: _____					
Does the agitator rotate the extraction vessel at 30 +/- 2 rpm?	4.1				
Is the ZHE extraction vessel 500-600 mL and can accommodate a 90-110 mm filter?	4.2.1				
Is the bottle extraction vessel made of glass and not plastic (except PTFE) for organics?	4.2.2				
Were all reagents used reagent grade (water Type II)?	5.1				
Was Extraction Fluid #1 prepared as a 60/40 weight percent mixture of H ₂ SO ₄ /HNO ₃ (may be diluted) and diluted until the pH is 4.20 +/- 0.05?	5.4.1				
Was Extraction Fluid #2 prepared as a 60/40 weight percent mixture of H ₂ SO ₄ /HNO ₃ (may be diluted) and diluted until the pH is 5.00 +/- 0.05?	5.4.2				
Was the pH of Extraction Fluids #1, #2, and #3 (Reagent Water) verified prior to use?	5.4.3				
Were preservatives not added to the sample prior to extraction?	6.1				
If precipitation occurred during storage, was the entire sample including precipitate included in the extraction process?	6.3				
Were samples intended for volatile analyses stored at 4°C to minimize volatile loss?	6.5				
Were extracts intended for metals analyses acidified with nitric acid to a pH < 2?	6.6				
Were extracts intended for organics analyses stored in containers with no headspace or atmospheric contact?	6.6				
Were extracts stored for acceptable holding times?	6.6				
Notes/Comments:					

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Were the proportions of solids in samples determined preliminarily to TCLP extractions?	7.1				
When percent solids were greater than 0.5% and Volatiles were Involved					
Were particle sizes reduced when particle sizes exceeded 1 cm in narrowest dimension or solids had a surface area greater than 3.1 cm ² /g?	7.1.3				
Where volatiles were to be determined, were solids reduced to a sieve size of 1 mm and 5.0 grams of the solid phase diluted with 96.5 mL of reagent water and stirred?	7.1.4.1-2				
If the pH of the diluted solid was >5.0, was the pH reduced to <5.0 with 3.5 mL 1N HCL and the sample covered with a watch glass and digested at 50°C for 10 minutes?	7.1.4.3				
If the pH was <5.0 was Extraction Fluid #1 used, and, if the pH was >5.0, even after the above digestion, was Extraction Fluid #2 used?	7.1.4.3-4				
If samples were determined to be 100% solid, were they not subjected to the above three checklist items?	7.1.5				
When percent solids were greater than 0.5% and Volatiles were not Involved					
Where samples were liquid or multiphase, were the liquid and solid separated by filtration?	7.2.1				
Were particle sizes of solid phases reduced when particle sizes exceeded 1 cm or solids had a surface area greater than 3.1 cm ² /g?	7.2.9				
Was the amount of extraction fluid to be added to the extractor vessel determined by ((20 x percent solids x weight of waste filtered)/100)	7.2.11				
Was extraction device rotated at 30 ± 2 rpm for 18 ± 2 hours at a room temperature of 23 ± 2°C?	7.2.12				
Were materials in the extractor filtered through a glass fiber filter following extraction?	7.2.12				
Were extraction device product filtrates recombined with liquid filtrates from previous steps if necessary	7.2.13				
Were the pHs of extracts recorded and immediately aliquoted and preserved if necessary and stored at proper temperatures?	7.2.14				
Notes/Comments:					

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When Volatiles were involved					
Was a Zero-Headspace Extractor device used?	7.3				
Was the Zero-Headspace Extractor only charged with sample once to avoid loss of volatile analytes?	7.3				
Were manipulations done when samples were 4°C or less?	7.3				
Was the ZHE rotated in the agitation apparatus for 30 ± 2 rpm for 18 ± 2 hours at a room temperature of 23 ± 2°C?	7.3.12.3				
Quality Assurance					
Was one blank analyzed for every 20 extractions conducted in an extraction vessel?	8.1				
Were matrix spikes evaluated at least once per batch and at least once per matrix type analyzed?	8.2				
Were matrix spikes added after filtration of the TCLP and before preservation? (They should not be added prior to extraction.)	8.2.1				
Did samples undergo TCLP within the holding times specified in the appropriate analytical methods?	8.5				
Notes/Comments:					

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SYNTHETIC PRECIPITATION LEACHING PROCEDURE by EPA 1312 (1994)

METHOD 1312

SYNTHETIC PRECIPITATION LEACHING PROCEDURE (continued)

